PATENT SPECIFICATION 833,539

DRAWINGS ATTACHED.

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COMPLETE SPECIFICATION.

Improvements in or relating to Flashings for Chimneys.

I, MATTHEW CONNOLLY, a Citizen of the Irish Republic, of 12 Denbigh Street, Hulme, Manchester 15, in the County of Lancaster (formerly of 95 Martindale Crescent, Langley Estate, Middleton, in the County of Lancaster), do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention concerns flashings for chimneys.

Hitherto, in the construction of buildings, it has been usual to provide flashings at the junctions between the chimneys and the roof tiles, slates or the like, in the form of fabricated lead, aluminium or copper sheet which lies flat against the chimney bricks on the front of the chimney and extends flat over the adjacent roof tiles or slates. Generally, the flashings are shaped to provide parts thereof which extend at each side of the chimney, and this has, hitherto, necessitated the provision of joints in the flashing. Consequently, the fabrication of such flashings is tedious and expensive, and the joints, of course, provide weaknesses in the flashings.

It is an object of this invention to provide a construction of flashing wherein the provision of joints is eliminated and which can be made quickly from a single flat piece of sheet metal.

According to the present invention a chimney flashing comprises an element of sheet metal which is provided with a pair of spaced-apart Z-sectioned folds which are at an angle to one another and terminate at their ends closest to one another at a distance from one edge of the element so as to provide, between the ends of the folds and the edge aforesaid, a portion of the element the plane of which is at an angle to the plane of the remainder of the element, such portion being adapted, in use, to lie flat against the chimney bricks.

The flashing aforesaid may be constructed simply starting with a rectangular or a trapezium-shaped element of sheet metal. The use of a trapezium-shaped element with the Z-shaped folds extending approximately half-way across the element from the ends of the shorter parallel side has the advantage that the resulting flashing is approximately rectangular when viewed in plan.

The invention will, of course, include a sheet of metal which is stamped, scored or otherwise marked in a manner so as to enable or facilitate it to be folded to make a chimney flashing aforesaid.

Moreover, the invention encompasses chimney structures incorporating such chimney flashings.

The invention will be described further, by way of example, with reference to the accompanying drawings, in which :—

Fig. 1 is a fragmentary perspective view showing a chimney structure incorporating two flashings constructed in accordance with the invention ;

Fig. 2 is an enlarged perspective view of one of the flashings of Fig. 1 ;

Fig. 3 is a cross-sectional end elevation taken on the line 3—3 of Fig. 2 ;

Fig. 4 is a plan view, on a slightly reduced scale, showing a sheet metal element from which the flashing of Figs. 2 and 3 is made ; and

Fig. 5 is a view, similar to Fig. 4 of a sheet metal element suitable for making the other flashing of Fig. 1.

Referring to Figs. 1 to 4, a chimney flashing 10 according to the invention is

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Price

made from a substantially trapezium-shaped thin sheet 11 (see Fig. 4) of lead, aluminium or copper, which is capable of being folded by hand.

The sheet is marked with fold lines as follows:

Firstly, there are two fold lines 11 and 12, each extending across the sheet, one from adjacent each end of the shorter side 13 of the parallel sides 13, 14 of the element at approximately 45° to such shorter side 13. These fold lines 11, 12 terminate short of the longer parallel side 14 of the sheet, their ends being spaced apart by a distance 15 approximately equal to the width 16 (see Fig. 1) of a chimney 17 with which the flashing 10 is to be used.

Also extending from adjacent the ends of the shorter side 13 are two further fold lines 18, 19, these each extending across the sheet at an angle of approximately 55° to such shorter side 13. These lines terminate at the longer parallel side 14 of the sheet again at points which, too, are spaced apart by a distance 15 approximately equal to the width 16 of the chimney 17.

Two further fold lines 20, 21 are provided and these are parallel to one another perpendicular to the longer parallel side 14 of the sheet and extend from such longer parallel sides, where the 55° fold lines 18, 19 meet the latter to join with the 45° fold lines 11, 12 respectively described in the last foregoing paragraph, at points 22, 23. A fold line 24 extending parallel to the sides 13, 14 joins the points 22, 23 and spaced therefrom, but closer to the side 14 is a parallel fold line 25, this connecting with fold lines 26, 27 which extend to and are perpendicular to the edge 14.

The sheet is now folded, a Z-fold 28, 29 (Fig. 2) being made at the 45° and 55° fold lines 11, 18, and 12, 19 from each end of the shorter parallel side 13. This causes that part 30 of the sheet between the parallel fold lines 26, 27 to be displaced so that it lies (as shown in Figs. 2 and 3) in a plane at an angle to the remainder of the sheet, the fold lines 24, 25 permitting the part 30 to take up any required angle relative to the sheet within the limits dictated by the angles of the Z-folds 28 and 29, the material thereat being arranged in a hair-pin configuration as shown in Fig. 3.

In use, the flashing 10, so folded, is employed as shown in Fig. 1. That part 31 of the sheet between the Z-folds 28, 29 is suitably positioned upon the usual sloping tiles 32 adjacent the front of the brick chimney 17, and the part 30 between the parallel fold lines 26, 27 lies against the bricks of the chimney 17. The upper edge of the part 30 is then bent over and sealed into a chasing in the brickwork. The parts 33, 34 of the sheet lying outside the folds 28, 29 lie on the sloping tiles 32 at each side of the chimney 17 and have upturned parts 35, 36 extending along the bricks at the sides of the chimney 17 to join with the part 30 at the front of the chimney 17, these parts 35, 36 being produced as a result of making the Z-folds 28, 29 and folding the part 30 out of the plane of the rest of the sheet.

The parts 33, 34 outside the folds will, of course, in use, lie underneath the usual soakers (not shown) provided at each side of the chimney.

In the flashing 10, the part 30 lies at an obtuse angle to the part 31. In the flashing 37 of Fig. 1, and in similar constructions, the angle as aforesaid requires to be of an acute nature, and to produce such an acute angle a metal sheet such as is shown in Fig. 5 will be employed. This sheet has been provided with score lines which are substantially equivalent to those described with reference to Fig. 4, and similar reference numerals have been applied thereto. However, in this instance the lines 20 and 21 which are perpendicular to the longer parallel edge 14 are spaced slightly further away from the adjacent lines 26, 27 respectively, and additional 45° and 55° fold lines 38, 39 and 40, 41 are provided, these being symmetrically disposed relative to the fold lines 11, 12, 18 and 19 respectively. In folding the sheet, two Z-folds are provided at either side of the sheet part 30 which abuts the chimney 17, and by such arrangement an acute angle between the sheet parts 30 and 31 is obtained.

The invention is not confined to the precise details of the foregoing example, and variations may, of course, be made thereto within the scope of the appended claims. For instance, the overall shape of the sheet of metal from which the flashing may be made can be other than rectangular or trapezoidal, according to requirements or the location in which the flashing is to be used. Moreover, the angles of the fold lines will vary according to the size of the sheet being used and the width of the chimney.

If desired, the flashing can be prefolded using a suitable folding machine, in which case the provision of the fold lines is not necessary.

WHAT I CLAIM IS:—

1. A chimney flashing comprising an element of sheet metal which is provided with a pair of spaced-apart Z-sectional folds which are at an angle to one another and terminate at their ends closest to one another at a distance from one edge of the element so as to provide, between the ends of the folds and the edge aforesaid, a portion of the element the plane of which is at an angle to the plane of the remainder of the element, such portion being adapted, in use, to lie flat against the chimney bricks.

2. A chimney flashing as claimed in Claim 1 further including an additional Z-fold at either side of that portion which is at an angle to the remainder of the element, causing said portion to lie at an acute angle to the remainder of the element.

3. A chimney flashing as claimed in Claim 1 or 2 which is constructed from a trapezium-shaped element of sheet metal so that the resulting flashing is approximately rectangular in plan.

4. A chimney flashing substantially as hereinbefore described with reference to Figs. 1 to 4 or Figs. 1 and 5 of the accompanying drawings.

5. A sheet of metal which is stamped, scored or otherwise marked in a manner so as to enable or facilitate it to be folded to make a chimney flashing as claimed in any preceding claim.

6. A chimney structure incorporating a flashing as claimed in any one of Claims 1 to 4.

For the Applicant :
BOSSHARDT, PERCIVAL & CO.,
Chartered Patent Agents,
94 Market Street,
Manchester 1.

PROVISIONAL SPECIFICATION.

Improvements in or relating to Flashings for Chimneys.

I, MATHEW CONNOLLY, a Citizen of the Irish Republic, of 95 Martindale Crescent, Langley Estate, Middleton, in the County of Lancaster, do hereby declare this invention to be described in the following statement :—

This invention concerns flashings for chimneys.

Hitherto, in the construction of buildings, it has been usual to provide flashings at the junctions between the chimneys and the roof tiles, slates or the like, in the form of fabricated lead, aluminium or copper sheet which lies flat against the chimney bricks on the front of the chimney and extends flat over the adjacent roof tiles or slates. Generally, the flashings are shaped to provide parts thereof which extend at each side of the chimney, and this has, hitherto, necessitated the provision of joints in the flashing. Consequently, the fabrication of such flashings is tedious and expensive, and the joints, of course, provide weaknesses in the flashings.

It is an object of this invention to provide a construction of flashing wherein the provision of joints is eliminated and which can be made quickly from a single flat piece of sheet metal.

According to the present invention a chimney flashing comprises an element of sheet metal which is provided with a pair of spaced-apart Z-sectioned folds which are at an angle to one another and terminate at their ends closest to one another at a distance from one edge of the element so as to provide, between the ends of the folds and the edge aforesaid, a portion of the element the plane of which is at an angle to the plane of the remainder of the element, such portion being adapted, in use, to lie flat against the chimney bricks.

The flashing aforesaid may be constructed simply starting with a rectangular or a trapezium-shaped element of sheet metal. The use of a trapezium-shaped element with the Z-shaped folds extending approximately half-way across the element from the ends of the shorter parallel side has the advantage that the resulting flashing is approximately rectangular when viewed in elevation.

The invention will, of course, include a sheet of metal which is stamped, scored or otherwise marked in a manner so as to enable or facilitate it to be folded to make a chimney flashing aforesaid.

Moreover, the invention encompasses chimney structures incorporating such chimney flashings.

The invention will be described further, by way of example, with reference to one practical embodiment thereof.

A chimney flashing according to the invention is made from a substantially trapezium-shaped thin sheet of lead, aluminium or copper, which is capable of being folded by hand.

The sheet is marked with fold lines as follows :

Firstly, there are two fold lines each extending across the sheet, one from each end of the shorter of the parallel sides of the element at approximately 45° to such shorter side. These fold lines terminate approximately midway across the sheet, their ends being spaced apart by a distance equal to the width of the chimney with which the flashing is to be used.

Also extending from the ends of the shorter side are two further fold lines, these each extending across the sheet at an angle of approximately 55° to such shorter side. These lines terminate closer to the longer parallel side of the sheet than the lines described above, again at points which, too, are spaced apart by a distance equal to the width of the chimney.

Two further fold lines are provided and these are parallel to one another perpendicu-

lar to the longer parallel side of the sheet and extend from such longer parallel side to the 55° fold lines described in the last foregoing paragraph.

The sheet is now folded, a Z-fold being made at the 45° and 55° fold lines from each end of the shorter parallel side. This causes that part of the sheet between the parallel fold lines to be displaced so that it lies in a plane at an angle to the remainder of the sheet.

In use, the flashing, so folded, is used in the following way. That part of the sheet between the Z-folds is suitably positioned upon the usual sloping tiles adjacent the front of a brick chimney, and that part between the parallel fold lines lies against the bricks of the chimney, the upper edge thereof being contained in a chasing in the brickwork. The parts of the sheet lying outside the folds lie on the sloping tiles at each side of the chimney and have a curved part extending along the bricks at the sides of the chimney to join with the part at the front of the chimney.

The parts outside the folds will, of course in use, lie underneath the usual soakers provided at each side of the chimney.

The invention is not confined to the precise details of the foregoing example, and variations may, of course, be made thereto. For instance, the overall shape of the sheet of metal from which the flashing may be made can be other than rectangular or trapezoidal, according to requirements or the location in which the flashing is to be used. Moreover, the angles of the fold lines will vary according to the size of the sheet being used and the width of the chimney.

If desired, the flashing can be prefold using a suitable folding machine, in which case the provision of the fold lines is not necessary.

For the Applicant:
BOSSHARDT, PERCIVAL & CO.,
Regent House,
30 Cannon Street,
Manchester 4.

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833,539 COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

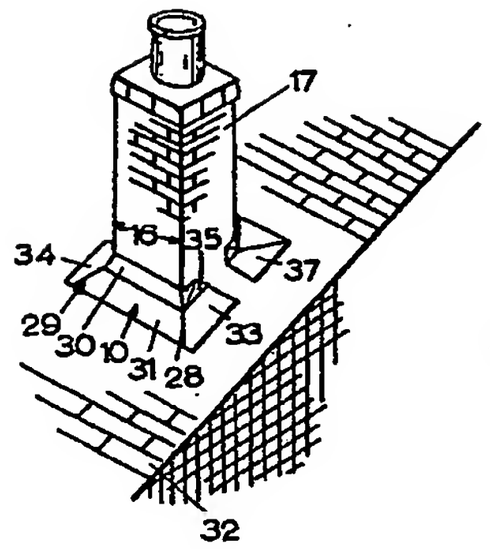

FIG.1

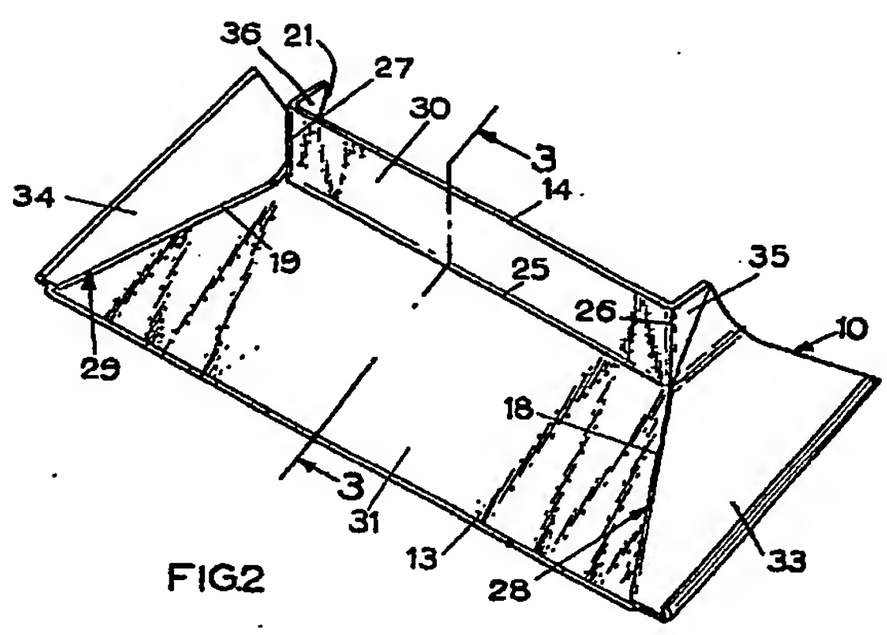

FIG.2

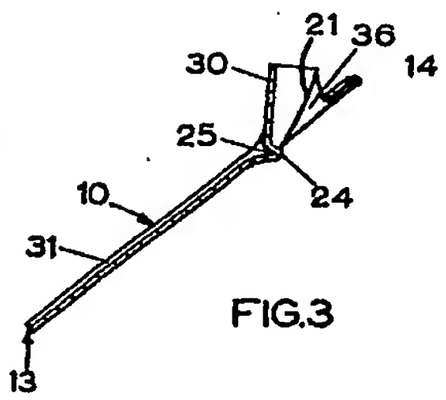

FIG.3

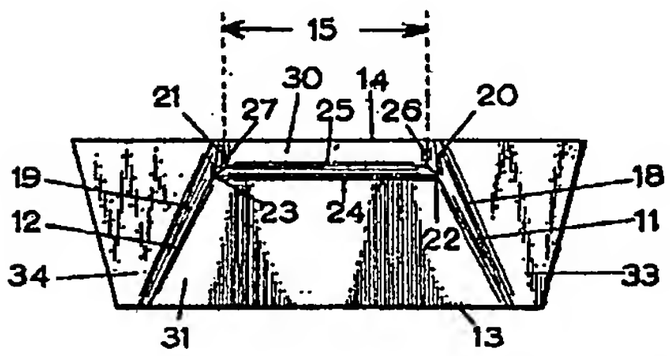

FIG.4

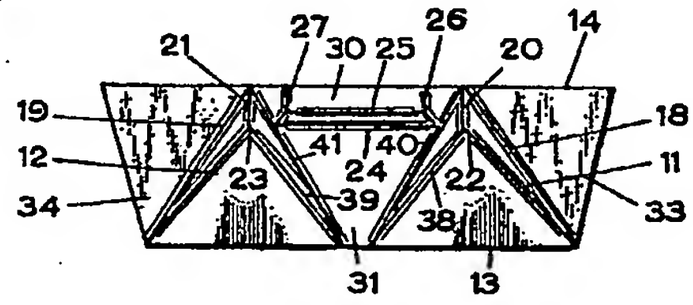

FIG.5